RECEIVED
CENTRAL FAX CENTER

DEC 17 2004

83466LMB
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Christine J. Landry-Coltrain, et al

MULTILAYER INKJET RECORDING ELEMENT WITH POROUS POLYESTER PARTICLE

Serial No. 10/028,129

Filed 20 December 2001

Group Art Unit: 1774

Examiner: Pamela R. Schwartz

I hereby certify that this correspondence was sent by facsimile transmission to the United States Patent and Trademark Office on the date set forth below.

Christine Tolhurst
Christine Tolhurst
December 17 2004
Date

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

3RD DECLARATION UNDER RULE 132

1. I, Christine J. Landry-Coltrain, state that I am a resident of Fairport, N.Y., in the county of Monroe and am a citizen of the United States. I obtained a Bachelor of Science degree in McGill University from Montreal, Canada in 1980. I also have a Ph.D. degree from the Univeristy of Wisconsin in Madison Wisconsin in 1985, with a focus on polymer science. I have been an employee of Eastman Kodak Company (hereinafter referred to as Kodak) since 1985. I have been assigned to work in research and development in areas relating to polymer science, such as polymer blends and composites, and media development, such as inkjet and thermal media, and studies relating to the physical propertiues of polymers.

2. I am one of the co-inventors of U.S. Serial No. US 10/028,130.

3. I have read the Office Action issued on August 17, 2004 and I am familiar with the references cited therein.

4. The present disclosure contains Table 4 on page 25, a copy of which is supplied below:

Table 4

PE dispersion	Mode 1			Mode 2		
	Mean diameter (micron)	Proportion (%)	CV (%)	Mean diameter (micron)	Proportion (%)	CV %
PE-1	0.356	100	35.2	--	--	--
PE-2	0.181	5.9	15.9	0.351	94.1	36.8
PE-3	1.082	9.1	44.2	2.69	90.9	27.1
PE-4	0.434	27.6	45.3	4.46	72.4	57.5

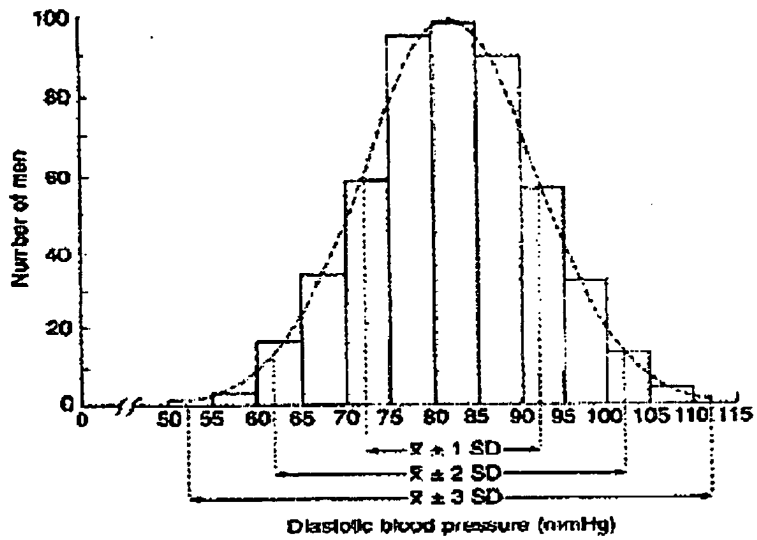
5. The coefficient of variation (CV) of a distribution is the ratio of the standard deviation of the distribution to the mean diameter, given as a percent. (pg. 10, lines 26-27) Expressed as an equation,

CV = % standard deviation / mean diameter.

6. Therefore, % standard deviation = (CV x mean diameter), making standard deviation = (CV x mean diameter)/100.

7. The reason why the standard deviation is such a useful measure of the scatter of the observations is this: if the observations follow a Normal distribution, a range covered by one standard deviation above the mean and one standard deviation below it (x_{mean} +/- 1SD) includes about 68% of the observations; a range of two standard deviations above and two below (x_{mean} +/- 2SD) about 95% of the observations; and of three standard deviations above and three below(x_{mean} +/- 3SD) about 99.7% of the observations. Consequently, if we know the mean and standard deviation of a set of observations, we can obtain some useful information by simple arithmetic. By putting one, two, or three standard deviations above and below the mean we can estimate the ranges that would be expected to include about 68%, 95%, and 99.7% of the observations. See http://bmj.bmjjournals.com/collections/statsbk/2.shtml. This is illustrated by the chart below:

Figure 2.1 Normal curve calculated from diastolic blood pressures of 500 men, mean 82 mmHg, standard deviation 10 mmHg.



8. Filling in the information provided in Table 4 for PE-1:

Standard deviation$_{PE-1}$ = CV$_{PE-1}$ x mean diameter$_{PE-1}$ = (35.2 x 0.356)/100 = 0.125312.
Mean diameter$_{PE-1}$ + Standard deviation$_{PE-1}$ = 0.356 + 0.125312 = 0.481312
Therefore, 68% of the particles in the bi-modal distribution of PE-1 have diameters of less than 0.48.

9. Filling in the information provided in Table 4 for PE-2 (mode 1):

Standard deviation$_{PE-2/1}$ = CV$_{PE-2/1}$ x mean diameter$_{PE-2/1}$ = (15.9 x 0.181)/100 = 0.028779.
Mean diameter$_{PE-2/1}$ + Standard deviation$_{PE-2/1}$ = 0.181 + 0.028779 = 0.209779

Filling in the information provided in Table 4 for PE-2 (mode 2):

Standard deviation$_{PE-2/2}$ = CV$_{PE-2/2}$ x mean diameter$_{PE-2/2}$ = (36.8 x 0.351)/100 = 0.129168.
Mean diameter$_{PE-2/2}$ + Standard deviation$_{PE-2/2}$ = 0.351 + 0.129168 = 0.480168

Therefore, combining the results from mode 1 and mode 2, more than 68% of the particles in the bi-modal distribution of PE-2 have diameters of less than 0.48.

10. Filling in the information provided in Table 4 for PE-3 (mode 1):

Standard $deviation_{PE-3/1} = CV_{PE-3/1}$ x mean $diameter_{PE-3/1} = (44.2 \times 1.082)/100 =$ .478244.
Mean $diameter_{PE-3/1}$ - Standard $deviation_{PE-3/1}$ $= 1.082 - .47822 = 0.60378$

Filling in the information provided in Table 4 for PE-3 (mode 2):

Standard $deviation_{PE-3/2} = CV_{PE-3/2}$ x mean $diameter_{PE-3/2} = (27.1 \times 2.69)/100 =$ 0.72899.
Mean $diameter_{PE-3/2}$ - Standard $deviation_{PE-3/2}$ $= 2.69 - 0.72899 = 1.9610$

Therefore, only 32% of the particles in mode 1 of the bi-modal distribution of PE-3 have diameters of at lower than 0.603, and only 32% of the particles in mode 2 of the bi-modal distribution of PE-3 have diameters of at lower than 1.961.

Mode 1 only represents 9.1% of the total particle population of PE-3. Thus, 32% x 9.1% is 2.91% of the total particles in PE-3 have a diameter less than 0.603.

Using Mode 2 only, 68% of the particles in Mode 2, which represent 90.9% of the toal particles in PE-3, have diameters of at least 1.96. Thus, 68% x 90.9%, or 61.8%, of the total particles in PE-3 have diameters of at least 1.96. It follows that, at most, less than 38.2% of the particles of PE-3 have diameters less than 0.5.

11. Filling in the information provided in Table 4 for PE-4 (mode 2):

Standard $deviation_{PE-4/2} = CV_{PE-4/2}$ x mean $diameter_{PE-4/2} = (57.5 \times 4.46)/100 = 2.5645$.
Mean $diameter_{PE-4/2}$ - Standard $deviation_{PE-4/2} = 4.46 - 2.5645 = 1.896$.

Therefore, 68% of the particles in Mode 2 (which represents 72.4% of the total particle population) in the bi-modal distribution of PE-4 have diameters of at least 1.896. Thus 72.4% X 68% (= 49%) of the total particles in PE-4 have diameters of at least 1.896. It follows that less than 51% of the particles of PE-4, at most, have a diameter less than 0.5 microns.

11. Filling the data calculated above, provides the following

Table 12

		Mode 1		Mode 2		
	% particles having diameter less than 0.5 microns	(%)	% particles having diameter less than 0.5 microns	(%)	%total particles having diameter less than 0.5 microns	60° gloss
PE-1	68%	100	--	--	68%	23, 30
PE-2	More than 68%	5.9	More than 68%	94.1	More than 68%	65, 48
PE-3	Less than 32%	9.1	Less than 32%	90.9	Less than 38%	3
PE-4	Less than 68%	27.6	Less than 32%	72.4	Less than 51%	10

12. When the performance data from Table 5 is added to Table 12, it is obvious that gloss improves as more small porous polyester particles are included. Once at least 68% of the particles have a diameter less than 0.5, gloss increases by a factor of at least 2.

13. I further declare that all statements made herein of my own knowledge are true and that the statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

Date: 12/17/04

Christine J. Landry-Coltrain